

# PATENT ABSTRACTS OF JAPAN

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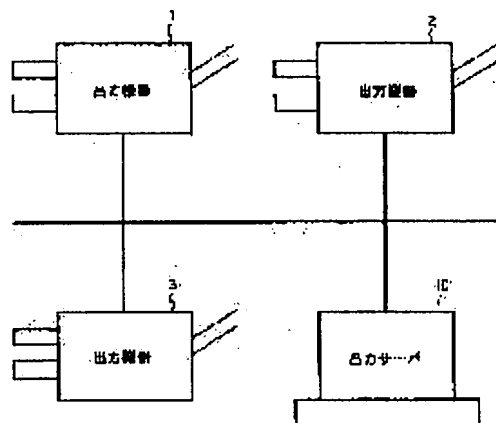
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## (54) OUTPUT SERVER

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide an output server which can quickly carry out an alternate means despite the faults of resources (output devices) scattered in a network that are caused when these resources are used and also to provide a method which can be easily used by an operator for selection of the alternate means.

**SOLUTION:** An output server 10 manages plural output devices 1, 2, 3... and contains a detection means which detects the states of output devices under management and a recognition means which recognizes the faults of these output devices. Then the print jobs of a faulty output device are distributed to an alternate output device. The grace time can be set for every fault to distribute the print jobs or the grace time can be set for every operator to distribute the print jobs for every fault.



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DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the output server which manages outputting a certain information to other devices (a printer, facsimile, digital copy, etc.).

[0002]

[Description of the Prior Art] In recent years, the technique of dealing with the output equipment in a network environment is progressing day by day. When saying that a certain data are outputted (it includes transmitting by printing, a fax message, etc.) under such circumstances, by the communication link of 1 to 1, the proposal which adds various functions which were not completed is made by managing two or more output equipment synthetically until now. For example, by managing output equipment synthetically, the printer of various classes is chosen and making an output job perform (output server) is proposed.

[0003] Moreover, current and various devices connect to the network, and in case a certain information is printed or transmitted, these structure shown transparent is proposed. In such a case, it becomes an important technical problem what kind of processing when a failure is encountered, is performed.

[0004] There are some it turns out to be that the job was interrupted only after it notified the error when the failure occurred in the specified output equipment even when the one output server had managed two or more sets of output equipment in the present condition, or it had already occurred, and not stopping processing, not giving the notice of an error depending on the system, either but an operator's saying near output equipment. In order to solve such a thing, a method which does not stop a print job as much as possible is proposed by using an alternate device also in the time of failure generating by the output server in a network environment.

[0005]

[Problem(s) to be Solved by the Invention] In case this invention proposes the output server which can perform an alternative means you to be Sumiya when using the resource (output equipment) which are scattered on these networks and a failure occurs in these and chooses the alternate device, it offers the output server which an operator tends to use.

[0006] Moreover, this invention proposes the output server from which the output which he desires more is obtained, when a failure occurs in the output equipment to which he wants to output output equipment about the output server managed synthetically.

[0007]

[Means for Solving the Problem] Invention of claim 1 has a detection means to detect the condition of the managed output equipment, and has a recognition means to recognize that the failure occurred in those output equipment, and enables it to distribute a print job to alternative output equipment from the output equipment with which the failure occurred in an output server which manages two or more sets of output units.

[0008] Invention of claim 2 enables it to set up the postponement time amount for distributing a print

job for every failure in invention of claim 1.

[0009] Invention of claim 3 enables it to set up a setup of the postponement time amount for distributing a print job for every failure for every operator in invention of claim 2.

[0010]

[Embodiment of the Invention] Drawing 1 is the system schematic diagram of this invention, 1, 2, and 3 -- is output equipment among drawing, 10 is an output server, and drawing 2 is the block diagram of said output equipment and the controller to control. In drawing 2, 101 is CPU which controls the whole controller by the program of a program ROM 104, the mode directions from panel equipment, and the command from host equipment. 102 is font data and IC Card which supplies a program from the outside. 103 is the nonvolatile storage which memorizes the contents of the mode directions from panel equipment etc., and is NVRAM. 104 is the program ROM in which the control program of a controller is stored. 105 is PUONTO ROM which memorizes the pattern data of a font etc. 106 is RAM used for the work-piece memory of CPU101, the input buffer of input data, the page buffer of print data, the memory for download fonts, etc. 107 is an engine 108, a command and the status, and an engine interface that performs the communication link of printing data. 108 is an engine which actually prints. 109 is a panel interface which performs the communication link of panel equipment 110, a command, and the status.

[0011] Moreover, 110 is panel equipment which tells a user about the condition of a current printer, or performs mode directions. 111 is host equipment 112 and a host interface which performs a communication link, and is usually SENTORO I/F and RS232C. 112 is host equipment which is high order equipment of a printer. 113 is the disk interfacing for communicating with a disk unit 114. 114 is the disk unit which memorizes data with various font data, programs, printing data, etc., and is a floppy disk drive unit, a hard disk drive unit, etc.

[0012] If the flow of the work about a fundamental output is explained with reference to drawing 3, an operator will publish an output job to the output equipment which he wants to output. In this case, if it is the usual case, this output equipment will print by receiving an output job, and will complete a job. However, when the output equipment which published the job cannot process a lifting and a job for a failure by a certain cause, a job is suspended and is not usually completed. It must go to the place of the output equipment with which the operator caused the failure after all, and a failure must be recovered. However, in such a situation, it is separated and it cannot be denied the device thought to be the device which often published the job that productivity falls.

[0013] In order to solve this, also when such a failure occurs, in order to mitigate an operator's activity as much as possible and to raise productivity, when two or more output equipment is managed by one output server, what performs a job using an alternate device is proposed. In case this invention performs the processing, it proposes the approach of being easy to use by the operator.

[0014] Then, if it turns out that a failure is in output equipment if it explains along with a flow chart, the contents check of the contents of a failure will be performed. And as shown in Table 1, after it sets time amount to a timer with reference to the list currently written for every failure and a timer carries out a flash plate, selection of an alternate device is performed and a printing job is made to continue a job and complete.

[0015]

[Table 1]

障害の名称	猶予時間 (秒)
紙切れ	60
ジャム	180
モータ故障	0
トナー切れ	0

[0016] By performing the above mentioned, a desired output can be quickly obtained by changing processing to an alternate device quickly about a failure like for example, motor failure which making it restore takes a long time. Moreover, the productivity in the whole office can also be raised by giving the

time amount which can restore a failure to some extent about BE \*\*\*\*\* through which a failure is spread immediately also for an operator like a slip of paper who can restore easily and uses it for a degree. Moreover, the productivity in an individual can be raised more by the ability making it enable it to set up the postponement time amount over these failures for every individual in a certain fixed range.  
[0017]

[Effect of the Invention] According to invention of claim 1, the output job specified by an operator can be performed certainly. Even if it does not go to the place whose operator is a failure device, the job which he published can be completed.

[0018] According to invention of claim 2, according to the class of failure, since the distribution decision time to an alternate device can be set up, the approach of being easier to use to the operator who performs an output job can be offered, and productivity can be raised.

[0019] According to invention of claim 3, by in addition to the effect of the invention of claim 2, distributing for every operator and being able to set up time amount, the approach of being easier to use can be offered and productivity can be raised further.

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DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1] It is the system schematic diagram of this invention.

[Drawing 2] It is the block diagram of the controller which controls output equipment.

[Drawing 3] It is a flow chart for giving explanation of this invention of operation.

[Description of Notations]

1, 2, 3 -- Output equipment, 10 -- An output server, 100 -- Controller.

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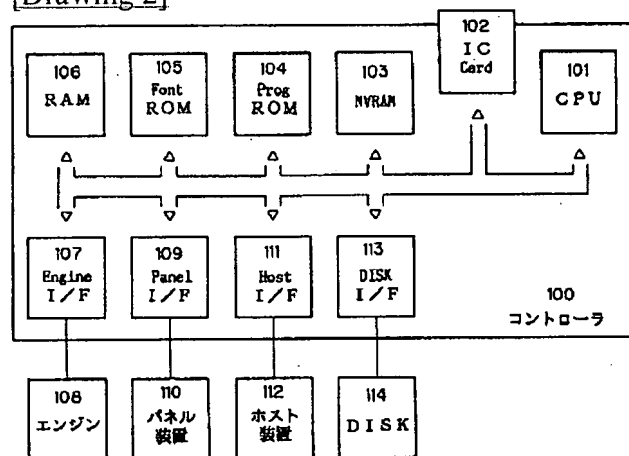
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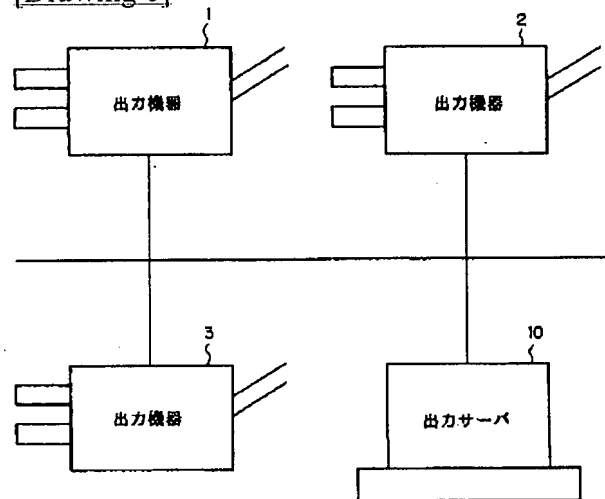
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## DRAWINGS

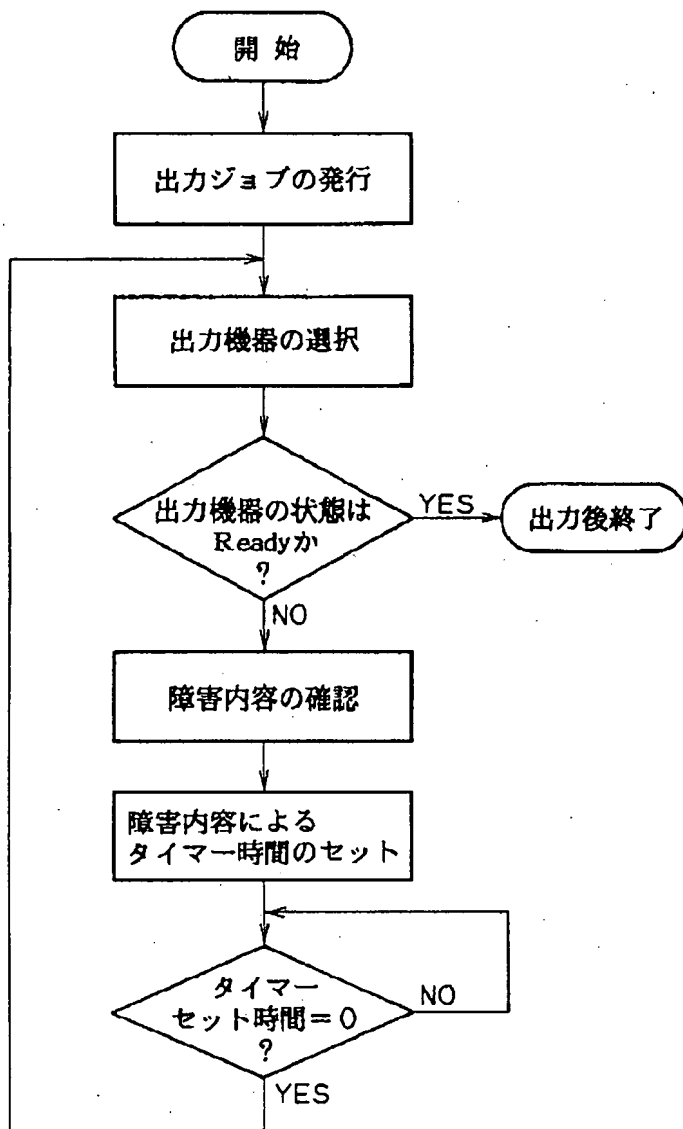
[Drawing 2]



[Drawing 1]



[Drawing 3]



[Translation done.]